**Hester -7th Grade Science**

**Unit – Energy and LP**

**Objectives** –

1.Earth is the only planet in our solar system with characteristics necessary to support life. These characteristics include water, an atmosphere, and optimal distance from the Sun. Space flight requires accommodations in order to provide life support in the form of oxygen, removal of carbon dioxide, water, and a source of food.

2. Energy from the Sun is the basis for life on Earth. 3. Ecosystems are comprised all biotic and abiotic factors in an area and the interactions

between them. 4. Energy is constantly cycled through an ecosystem. 5. Energy pyramids illustrate distribution of energy within an ecosystem. 6. Food webs illustrate transfer of energy within an ecosystem. 7. The water, carbon, and nitrogen cycles are responsible for the recycling of biotic

(living) and abiotic (nonliving) components of an ecosystem. 8. Autotrophs (producers) make their own food using water, carbon dioxide, and energy

from the sun in a process called photosynthesis.9. Heterotrophs (consumers) obtain their food by eating producers, other consumers, or both.

10. Plants are producers (autotrophs), and producers are the foundation of all energy pyramids and food webs.

11. Stimuli in the environment can affect a plant’s behavioral and physiological responses. 12. Decomposers play an important role in the recycling of nutrients in an ecosystem. 13. Organisms at different trophic levels within an ecosystem differ in the amounts of

energy required for survival. **Blooms :**

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| Evaluating: can the student justify a stand or decision? |
| Analyzing: can the student distinguish between the different parts? |
| Applying: can the student use the information in a new way? |
| Understanding: can the student explain ideas or concepts? |
| Remembering: can the student recall or remember the information? |
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**Materials/Resources Needed:**

IPad

**Anticipatory Set –** none  
**Objective/Purpose –** Students will create a form of digital media (Power Point, I Movie, etc ) to presnt on of the concepts of the unit.  
  
**Prior Knowledge-** Previous Grades and revious TEKS, what we have covered in class up to this point **Model –** None

**Check for Understanding –** by walking around and checking and by what they turn in (present)

**Guided Practice** –none

**Closure** –questioning

**Independent Practice** –None